

Update: Implementation of Microbial and Disinfection Byproduct Rules

A couple of years ago, Issue #13 of this newsletter contained a special insert that described the *Stage 1 Disinfectants and Disinfection Byproducts Rule (DBP Rule)* and the *Interim Enhanced Surface Water Treatment Rule (IESWTR)*. These two rules are part of a group of existing and upcoming regulations that deal with the control of microbial contaminants and the chemical byproducts that sometimes result from the use of disinfectants.

Together, these regulations are called the Microbial/Disinfection Byproducts (MDBP) Rules. Included are old friends like the *Total Coliform Rule* and the *Surface Water Treatment Rule*. Future additions to this group (see chart next column) include enhanced surface water treatment rules, the ground water rule, and a second stage of the disinfection byproducts rule. Fortunately, this potentially

"Disinfection byproducts result from reactions between disinfectants and naturally occurring organic substances in the untreated water."

confusing array of new regulations will be arriving over a period of years, which will give both regulators and public water systems a little time to learn about them.

Enhanced Surface Water Treatment

The IESWTR has been in effect since 2001 for Idaho's two largest surface water systems. It requires tighter turbidity control and constant monitoring of individual filter beds. The *Long Term 1 Enhanced Surface Water Treatment Rule (LT1)* spells out requirements for surface water systems with fewer than 10,000 customers that are quite similar to those in the IESWTR. Some very early requirements of this rule have been affecting surface water systems this summer, but most provisions will not kick in until 2005.

Stage 1 DBP Monitoring Will Arrive in Force in 2004

This rule affects all community and non-transient non-community water systems that add a disinfectant to their water. Surface water systems serving 10,000 or more customers have been complying with this rule since early

2002. Surface water systems serving fewer than 10,000 customers and all ground water systems that use a disinfectant will be subject to routine monitoring for disinfection byproducts beginning in the first quarter of 2004.

DEQ will be contacting affected systems soon to explain the regulatory framework and begin the process of developing sampling plans. Systems that have multiple wells, and multiple points at which disinfectant is added, may be able to demonstrate that their sources draw from a common aquifer in respect to the potential for disinfection byproduct formation. If so, this will reduce the sampling burden.

DEQ believes that it makes sense to get a head start on implementation, so that water systems can have a little extra time to study their sources and develop a sampling plan that will hold the number of samples to the minimum needed to protect public health. For those who have access

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■ Microbial/Disinfection Byproducts (MDBP) Rules

MDBP Rules – Present

Total Coliform Rule (TCR)
Surface Water Treatment Rule (SWTR)
Interim Enhanced Surface Water Treatment Rule (IESWTR)
Long Term 1 Enhanced Surface Water Treatment Rule (LT1)
Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBP)
Filter Backwash Recycling Rule

MDBP Rules – Future

Ground Water Rule (GWR)
Long Term 2 Enhanced Surface Water Treatment Rule (LT2)
Stage 2 DBP Rule
Revised Total Coliform Rule (*Maybe – EPA to decide soon*)
Distribution System Rule

EPA's Arsenic Treatment Demonstration Project - Round 2

USEPA announced Round 2 of the Arsenic Treatment Demonstration Project in April. The goal of the project is to demonstrate commercially-ready treatment technologies or engineering solutions for removing or reducing arsenic for small systems.

EPA expects to fund 18-22 projects nationwide for Round 2. Selected sites will enjoy the benefits of having a technological or engineering solution to arsenic at a substantially lower cost than hiring it out themselves.

Solicitation for Round 1 of the project was in 2002 and the city of Fruitland, Idaho was among the 18 project sites selected in the nation. One question that surfaced after Round 1 was how much direct involvement will EPA have with the system and the state. Answer: very little. The system will work primarily with their state drinking water program and a contractor selected through an EPA solicitation process.

EPA will request technology proposals for the selected sites from technology vendors, engineering firms, and others in September 2003. EPA will also work with selected systems to draft an agreement that outlines the

terms of the project, and will not proceed without complete approval of the water utility and the state drinking water program.

Applications will be accepted from community and non-community non-transient water systems that serve less than 10,000 people and have determined their levels of arsenic to be currently over 10 parts per billion (ppb). The 12 Idaho utilities that submitted applications for Round 1 will not need to resubmit their applications.

A copy of the application and more information on the project can be found on-line at <http://www.epa.gov/ORD/NRMRL/arsenic/index.html>. Select the link under "Round 2." Please submit applications to the Idaho DEQ, at the address below, by July 11, 2003:

Idaho DEQ

ATTN: DW Arsenic Project Coordinator
1410 North Hilton
Boise, ID 83706

Update *continued*

to the Internet, you can find a useful fact sheet that summarizes the DBP Rule at <http://www.epa.gov/safewater/mdbp/implement.html>. This web page contains links to a wealth of information about the MDBP Rules in general.

Disinfection byproducts result from reactions between disinfectants and naturally occurring organic substances in the untreated water. For this reason, surface water systems are at higher risk for DBP formation than ground water systems. Those systems that do find DBPs at concentrations above the MCL will be required to optimize their disinfection practices or apply other treatment strategies to reduce the level of these compounds. Scientific studies have associated disinfection byproducts with cancer and other adverse health effects.

Check out the EPA web site mentioned above if you cannot wait to learn more about these rules. Otherwise, look for your DEQ or Health District drinking water representatives to be in touch with you in 2003 to assist you in preparing for compliance with the *Stage 1 DBP* and other MDBP rules. ■

On Interpreting Drinking Water Rules

■ If you have questions regarding drinking water rules and regulations, remember to contact your local DEQ regional office.

Questions regarding state and federal drinking water rules and regulations should be directed to the Idaho Department of Environmental Quality, the agency that regulates the state's public drinking water systems. DEQ is the state of Idaho's designated "primacy agency" for the drinking water program.

The term "primacy agency" refers to the agency that has the primary responsibility for administering the Safe Drinking Water Act in a particular state. In Idaho, that primacy agency is the DEQ.

The Drinking Water Program subcontracts with a number of "third-party" contractors to provide needed services for Idaho's 2,100 public drinking water systems. Third-party contractors, however, are not responsible for the administration of the state drinking water program. So, if you have questions regarding drinking water rules or regulations, contact your state and local DEQ offices for assistance or interpretation.

Third-party contractors cannot make decisions for DEQ, and should not be put in the position of trying to interpret state and federal drinking water regulations.

DEQ urges eligible systems to apply **Exemptions & the Arsenic Rule**

Under the new arsenic standard of 10 ppb, public water systems can apply for an exemption, but the federal use of the term "exemption" is misleading. Granting an exemption actually means extending the time a system has to come into compliance with the rule. It does not mean that a system is exempt from the 10 ppb standard.

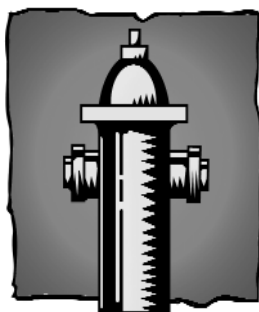
If a water system is eligible for an arsenic exemption, they may have an additional 3 to 9 years to come into compliance beyond the January 2006 deadline date. To determine exemption eligibility, a system:

- 1) had to be in operation prior to February 22, 2002,
- 2) has an arsenic concentration less than 35 parts per billion (ppb),
- 3) cannot make management or restructuring changes that would result in compliance,
- 4) will require capital improvements, which cannot be completed by January 23, 2006, and
- 5) has determined that there are no reasonable alternative sources of water.

The U.S. EPA will be processing the exemption applications for Idaho water systems until January 23, 2005 after which time, Idaho DEQ will process the applications. Exemptions must be filed prior to the effective date of the maximum contaminant level (MCL), which is January 23, 2006.

Water systems interested in receiving an exemption (i.e., an extension of time) for the new Arsenic Rule are encouraged to start the application process early to ensure compliance. Additional information and application materials for arsenic exemptions will be available on-line by the end of June through the Idaho DEQ web-site at: <http://www.deq.state.id.us/water/water1.htm>. ■

System Security Reminder



As a public water system, if you lock your **fire hydrants** as a security measure, make sure that you take that action in collaboration with your fire control unit.

Fire departments must have quick access to water in times of an emergency in order to protect the public. Develop a plan of action, in advance, in cooperation with your local fire department.

Operator sentenced to jail for submitting false samples

Sprinkling system also supplied drinking water to customers

In April, 2003, an Ada County public water system operator found out that the Department of Environmental Quality (DEQ) takes its responsibility for protecting public drinking water seriously.

On April 11, James Earl Waters received a sentence of 30 days incarceration with no days suspended in Ada County Court. Waters had operated a skating arena in Boise for years and been subjected to a civil suit for failing to have adequately maintained his public water system.

According to Lance Nielsen, state Drinking Water Manager, "Waters' compliance with the Court's Orders in the civil case had been irregular." In the fall of 2000, a magistrate ordered Waters sent to jail for five days for contempt of court for failing to comply with the state rules regarding public drinking water systems.

A year later, in the fall of 2001, Department of Environmental Quality became aware of a deposition given by Waters in the course of a contentious divorce proceeding. In the deposition, Waters admitted to submitting false water samples for testing. Waters used tap water from his sink at home to obtain clean samples, evidence that his divorced wife provided the Department.

In April of 2002, DEQ officials and the Idaho State Police inspected the facility, which Waters previously occupied, to determine whether corroborating evidence existed. "The inspection revealed that the drinking water system had been hooked up to the sprinkler system and alarm devices were bypassed," said Nielsen.

DEQ brought a criminal case against Waters for submitting the false samples in violation of Department rules. Waters pled guilty to a misdemeanor Falsifying Samples charge, failed to appear for his sentencing, was arrested, and later obtained the 30 days of incarceration sentence.

"The responsibility of every operator is to provide safe drinking water to the system's customers, and the responsibility of the Department is to protect public health by making sure that the systems strictly adhere to the Safe Drinking Water Act of 1996," Nielsen said. ■

TRAINING SCHEDULE

Class/Sponsor	Location	Date
Water Math ★	<i>Moscow</i>	<i>July 8</i>
Wetland Water ★	<i>Moscow</i>	<i>July 9-10</i>
Electrical Maintenance ★	<i>Twin Falls</i>	<i>July 15-16</i>
Certification Review: Collection Systems I & II ★	<i>Lewiston</i>	<i>July 30</i>
Certification Review: Collection Systems III & IV ★	<i>Lewiston</i>	<i>July 31</i>
Cross Connections . . . What Are They? ★	<i>Soda Springs</i>	<i>August 5</i>
Certification Review: Wastewater I & II ★	<i>Grace</i>	<i>August 6-7</i>
Mechanical Maintenance ★	<i>Sandpoint</i>	<i>August 12-13</i>
Certification Review: Water I & II ★	<i>Boise</i>	<i>August 26-27</i>
Troubleshooting Water Systems ★	<i>Boise</i>	<i>August 28</i>

Reminder to Community Water Systems

2002 CCRs

are due July 1, 2003

DEQ mailed CCR templates to
all community water systems in April.

The template is also available on-line at
<http://www.deq.state.id.us/water/dw/ccr.htm>
and can be downloaded to a computer file and filled out.

Certification Review: Wastewater III & IV ★	<i>Boise</i>	<i>September 3-4</i>
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Certification Review: VSWS ★	<i>Nampa</i>	<i>September 6</i>
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Membrane Technology ★	<i>Boise</i>	<i>September 25</i>
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★ Brown Environmental, Inc. 1-800-543-4358 or for the Boise area,
208-465-5725. Fax: 208-465-8081

▲ Idaho Rural Water Association, 1-800-962-3257 or for the Boise area,
208-343-7001. Fax: 208-343-1866.

Costs associated with this publication are available from the Department of Environmental Quality. Cost per unit: \$0.21 Printed on recycled paper. ♻️